

REMARKS

This amendment responds to the office action dated March 7, 2007.

The Examiner rejected claims 1, 5, 11, 15, 21, 25, and 26 under 35 U.S.C. § 102(e) as being anticipated by Tretiakoff et al., U.S. Patent Pub. No. 2003/0134256 (hereinafter Tretiakoff). Tretiakoff discloses a camera that digitally captures an image and audibly recites text in the image deciphered by optical recognition software. Tretiakoff discloses that the text recognition will not function unless the text in the captured image is rotationally aligned to appear horizontal in the image and the lens of the capturing device is zoomed out far enough to capture the entire text of a page captured. Thus, Tretiakoff discloses that the apparatus includes

an automatic image centering and framing (size adjustment) function . . . to detect the presence and position of the document or object borders and provide to the user through audible or tactile means clues which will help achieve image centering and framing without actually seeing this image as a sighted person would.

See Tretiakoff at par. 0030. Thus, Tretiakoff requires a cumbersome, user-intensive feedback procedure to instruct the user to zoom in and out, and to rotate the camera to a correct position to enable the text recognition ability of the disclosed camera.

The Examiner also asserts (with respect to dependent claims 9 and 19 rejected as being obvious in view of Tretiakoff) that the reference discloses correcting for distortion in an image resulting from digitally capturing a curved surface. The Examiner cites paragraph 0032 of that reference to support this assertion. The cited passage, however, discloses no such thing. In this passage, Tretiakoff merely discloses that the camera can be connected to a “tactile graphic array” to reproduce, in a manner that can be *felt* by a visually impaired person, non-text shapes on the page, or characters that the optical recognition system does not recognize. Thus, even if this feature would reproduce, on a tactile display, distorted text that could not be recognized, the distortion would not be corrected, but merely *reproduced identically* on a tactile surface.

As amended, independent claim 1 recites the limitation of “a fourth element capable of automatically processing said captured image so as to correct, without user interaction, for at least one of: (i) image skew; (ii) image distortion; and (iii) image blur, where said processing

facilitates automated character recognition of text in a captured said image.” This limitation is directed to a disclosed novel feature that eliminates the aforementioned cumbersome procedure of Tretiakoff. Therefore, claim 1, \ patentably distinguishes over Tretiakoff.

Dependent claim 5 as amended recites the additional limitation of a “programmable electronic dictionary [that] includes a phonetic module that automatically recites an estimated pronunciation of a word to a user for verification.” This limitation is not disclosed in any of the cited references. Thus claim 5 distinguishes over Tretiakoff not only by virtue of its dependence from claim 1, but because of the additional amended limitation.

Similarly, independent claim 11, as amended, recites the limitation of “a fourth element comprising an electronic storage storing software that processes an image captured by said third element to correct, without user interaction, for at least one of: (i) image skew; (ii) image distortion; and (iii) image blur, where said processing facilitates automated character recognition of text in a captured said image.” Dependent claim 15 recites the additional limitation of a “programmable electronic dictionary [that] includes a phonetic module that automatically recites an estimated pronunciation of a word to a user for verification.” This claims 11 and 15 distinguish over Tretiakoff for the same respective reasons as do claims 1 and 5.

Claim 21, as amended, recites the limitation of “where said processor includes a page prompt module that is capable of identifying a page number in the header or footer of an image, and prompting the audio device to recite a warning to a user if the apparatus receives images of pages of text in nonsequential order, prior to said device capturing an image of the words on a page determined to be in nonsequential order.” The Examiner alleges, with respect to rejected dependent claim 27 under 35 U.S.C. § 103(a), that a secondary reference, Baum, discloses “a page prompt module . . . capable of identifying a page number in the header or footer of an image and . . . recit[ing] a warning to a user if the apparatus receives images of pages of text in a nonsequential order.” Baum does not disclose this feature; rather, Baum discloses a system in which an entire document is scanned, in order, and the system recites the page numbers as they are sequentially read. Baum discloses no warning to a user, as it assumes the pages are in a sequential order.

Appl. No. 10/676,273
Amdt. dated June 7, 2007
Reply to Office action of March 7, 2007

In any event, Baum cannot disclose the limitation of audibly reciting the warning “prior to said device capturing an image of the words on a page determined to be in nonsequential order.” Therefore, claim 21, as well as its dependent claims 26 and 26, each patentably distinguishes over the cited prior art and the applicant respectfully requests that the rejection of these claims be withdrawn.

The Examiner rejected claims 6-10 and 16-20 under 35 U.S.C. § 103(a) as being obvious in view of Tretiakoff. Each of these claims depends from a respective one of claims 1 or claim 11, and are each patentable over Tretiakoff for the same reasons as are claims 1 and 11. The applicant therefore respectfully requests that the rejection of these claims be withdrawn.

The Examiner rejected claims 4, 14, 22, 23, 28, 30, and 32-34 under 35 U.S.C. 0 103(a) as being obvious in view of the combination of Tretiakoff and Schuller, U.S. Patent No. 6,965,862. Each of claims 4, 14, 22, and 23 depends from a respective one of claims 1, 11, and 21; the Examiner’s rejection of these dependent claims presumes that Tretiakoff anticipates, or renders obvious, all the limitations of the respective independent claim upon which each dependent claim depends. However, because each independent claim 1, 11, and 21 as amended distinguishes over Tretiakoff, these rejected dependent claims also distinguish over the cited combination of Tretiakoff and Schuller.

Independent claim 28 recites the limitation of a “cell phone” capable of audibly reciting text captured by a camera in the cell phone. More specifically, the claim requires that the cell phone body include an “audio receiver.” The Examiner has not cited any disclosure in either reference disclosing this limitation. The Examiner notes that Schuller discloses a PDA that may include a modem capable of communication with a remote device over a wireless cellular *channel*; however such a device is not disclosed to be a cell phone having an audio receiver.

In any event, claim 28, as amended, recites the added limitation of “storage storing a plurality of templates for identifying the *layout* format of text in an image captured by said digital camera. The Examiner alleges that “in order for the optical character recognition [Tretiakoff’s] system to function properly the device would have to have templates that govern its ability to recognize characters from any text.” While the applicant agrees that Tretiakoff’s

Appl. No. 10/676,273
Amdt. dated June 7, 2007
Reply to Office action of March 7, 2007

system would have to be able to recognize a variety of character *fonts*, it does not follow that Tretiakoff's system inherently needs to recognize the *layout format* of text, i.e. dual column, etc. To the contrary, it is entirely plausible that the system of Tretiakoff assumes that the layout format is the ubiquitous standard page layout used in writing this response, for example, and would simply not be intended to be used to read items such as menus, etc. Certainly the cited reference gives no indication that the device is to be used to read text digitally captured from pages having different layout formats. Absent such an express indication, the Examiner's rejection is improper.

Dependent claims 30 and 32-34 depend from independent claim 28 and are patentable over the cited combination for the same reasons as is claim 28. In addition, independent claims 33 and 34 recite additional limitations not remotely suggested by any cited prior art reference. Specifically, no reference discloses a device having a template identifying a that a page from a telephone book has been captured (claim 33) and if so, dialing a number just audibly recited upon prompting by a user (claim 34). Thus, these claims are further distinguished over the cited prior art.

The Examiner rejected claims 2, 3, 12, 13, 24, 27, 29, and 32 under 35 U.S.C. § 103(a) in view of various combinations involving Tretiakoff. Claim 27 has been canceled. Each of the remaining rejected claims respectively depends from one of independent claims 1, 11, 21, and 28 and is distinguished over the cited prior art for the same reasons as is the dependent claim from which it respectively depends.

In view of the foregoing amendments and remarks, the applicant respectfully requests reconsideration and allowance of claims 1-26 and 28-34.

Respectfully submitted,



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